

**Synonym**

Integrin alpha M beta 2, ITGAM&amp;ITGB2

**Source**

Human ITGAM&ITGB2 Heterodimer Protein, His Tag&Tag Free (IT2-H52W4) is expressed from human 293 cells (HEK293). It contains AA Phe 17 - Asn 1105 (ITGAM) & Gln 23 - Asn 700 (ITGB2) (Accession # P11215-2 (ITGAM) & P05107-1 (ITGB2)).

Predicted N-terminus: Phe 17 (ITGAM) & Gln 23 (ITGB2)

**Molecular Characterization**

ITGAM (Phe 17 - Asn 1105) P11215-2	Acidic Tail	Poly-his
ITGB2 (Gln 23 - Asn 700) P05107-1	Basic Tail	

Human ITGAM&ITGB2 Heterodimer Protein, His Tag&Tag Free, produced by co-expression of ITGAM and ITGB2, has a calculated MW of 127.2 kDa (ITGAM) and 80.2 kDa (ITGB2). Subunit ITGAM is fused with an acidic tail at the C-terminus and followed by a polyhistidine tag and subunit ITGB2 contains no tag but a basic tail at the C-terminus. The non-reducing (NR) protein migrates as 150-180 kDa (ITGAM) and 85-95 kDa (ITGB2) respectively due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

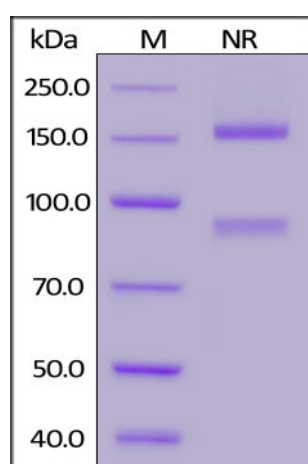
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human ITGAM&ITGB2 Heterodimer Protein, His Tag&Tag Free on SDS-PAGE under non-reducing (NR) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Background**

Integrin ITGAM/ITGB2 is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake of complement-coated particles and pathogens. It is identical with CR-3, the receptor for the iC3b fragment of the third complement component. It probably recognizes the R-G-D peptide in C3b. Integrin ITGAM/ITGB2 is also a receptor for fibrinogen, factor X and ICAM1. It recognizes P1 and P2 peptides of fibrinogen gamma chain. In association with beta subunit ITGB2/CD18, required for CD177-PRTN3-mediated activation of TNF primed neutrophils. May regulate phagocytosis-induced apoptosis in extravasated neutrophils. May play a role in mast cell development. Required with TYROBP/DAP12 in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development.

## References

- (1) [Jerke U, J Biol Chem. 2011. 286\(9\):7070-81.](#)
- (2) [Losse J, J Immunol. 2010. 184\(2\):912-21.](#)
- (3) [DiScipio RG, J Immunol. 1998. 160\(8\):4057-66.](#)

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.